

ACADEMY

Newsletter

DEDICATED
TO SCIENTIFIC
RESEARCH AND
EDUCATION,
INSPIRING
RESPECT FOR
THE NATURAL
WORLD

MEMBERS MEETING

HUMMINGBIRDS

With Dr. Luis Baptista, Ornithology and Mammalogy * Thursday, January 11, 2 p.m. & 7:30 p.m.



Karen Gebra

Hummingbirds amaze bird lovers with their ability to fly straight up and even backward. But perhaps their most remarkable feat is hovering in the air while sipping nectar from a flower.

Many flowers have evolved to attract hummingbirds and to discourage illegitimate visitors like flies and bees. Hummingbirds, in turn, have adapted special mechanisms that allow them to visit and pollinate flowers. Some hummingbirds defend flower patches, others, such as hermit hummingbirds, follow a memorized path of flowers along the rain forest floor.

Many times male hummingbirds gather in display arenas and sing to attract mates. Each arena usually has a distinct song dialect. Marking, banding and DNA studies in Costa Rica have been undertaken to determine if birds sing a common dialect and to examine the relationship of cultural and genetic transmission of song.

Dr. Luis Baptista, the chairman and curator of the Academy of Sciences' ornithology and mammalogy department, will discuss these topics and more in his slide-illustrated lecture concerning his work in the rain forests of Costa Rica, the Caribbean Islands and the Amazon.

Baptista also is collaborating with Mexican biologists on a conservation habitat restoration program in Isla Socorro, Revillagigedo Archipelago, Mexico. He is co-author, with the late Carl Welty, of the popular college textbook *The Life of Birds* and has written approximately 100 other scientific papers on various aspects of ornithology.



Luis Baptista

LONG-TAILED HERMIT HUMMINGBIRD FROM COSTA RICA, ONE OF THE SUBJECTS OF STUDY BY LUIS BAPTISTA AND COLLEAGUE.

Please present your membership card at the front entrance and again at the auditorium. Members who wish to bring guests to the lecture can now purchase guest tickets at the membership desk at the front entrance before entering the auditorium. Guest tickets are \$10 each for adults and \$5 for children.

Please Note: Only the main CAS entrance will be open for the members' evening lectures.

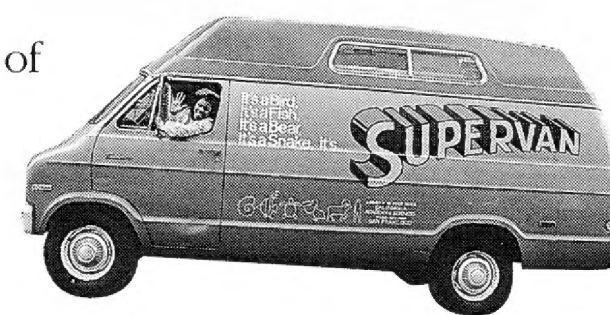
Community Lending Collection Now Available

The Academy of Sciences' library is pleased to announce a new lending program for Academy members. The Community Lending Collection consists of more than 2,000 books, videos and CD-ROMs spanning a wide range of subjects in the natural sciences and serving all age groups. Borrowing periods range from one week for videos to three weeks for books and CD-ROMs.

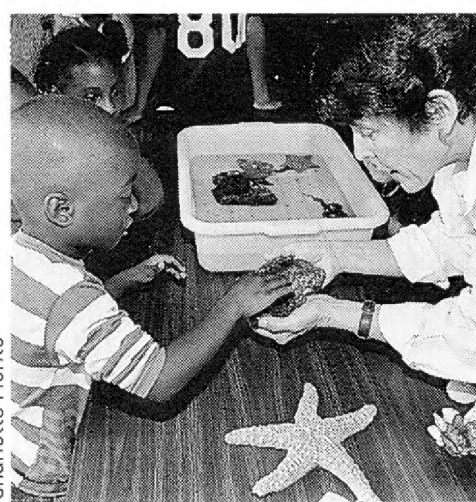
Members wishing to borrow materials from this collection should present their membership card at either the Biodiversity Resource Center on the main floor or the Academy Library on the second floor (use elevator near the Discovery Room). The Biodiversity Resource Center is open daily from 10 a.m. to 5 p.m. and the Academy Library is open weekdays only from 10 a.m. to 5 p.m. This project has been made possible by the generous support of the Sebastian family, the William Mailliard estate and the Heller Foundation.

The California Academy of Sciences — To Go!

Academy educators bring the resources of the museum to new audiences through a lively outreach program called Supervan. Two vans, chock full of live animals (like the sea cucumber pictured below), objects from the collections, and hands-on



Charlotte Fiorito



Charlotte Fiorito

activity materials visit classrooms, community centers, homeless shelters, playgrounds and parks. This "minimuseum" on wheels travels from San Francisco to Sacramento and the San Joaquin Delta, Santa Cruz and Petaluma. To schedule a visit to a San Francisco classroom, call 750-7155. All other sites should call 750-7100.

Academy of Sciences' ambassadors come in many — sometimes squishy — shapes and sizes.

RESEARCHERS CAST SPELL AT HALLOWEEN



Dong Lin

Academy trustee Shawn Byers and her costumed companions meet collections manager Karen Cebra and son.

There is no place quite like the Academy of Sciences to experience a bit of Halloween spooOOOookiness. From the cavernous halls with those oh-so-lifelike exhibit animals — *wait, did that deer just blink?* — to the creepy collections of slimy wet things, the natural history museum is just the place to get in touch with the eerie and icky.

This past October, Academy scientists — specialists in things creepy and crawly — shared some favorite specimens from the collections, demonstrated various creature's adaptations and behaviors, and gave guests a chance to see, touch and smell some weirdly natural phenomena. Games, craft activities and food rounded out the festive, active "out of the ooze" evening attended by 400 costumed adults and children.

Events like these give CAS' research staff the chance to talk to visitors about the natural world, show off some of the Academy's collections, and demonstrate a slice of the life of scientists.

Watch for announcements on other upcoming events that put Academy members in touch with the research staff, like Members Open House (May 8), Curators' Circle

Reception (March 12), and monthly members meetings. Also, mark your calendars now, for the next Halloween party on Friday, Oct. 25!



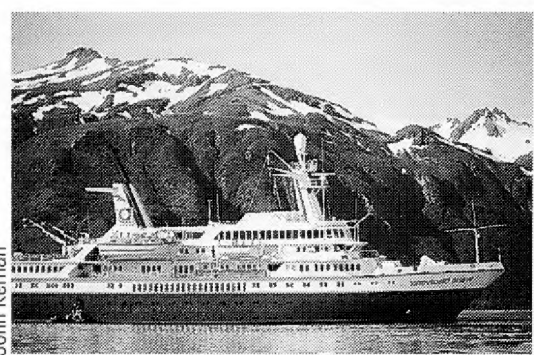
Dong Lin

Bewitching Herpetology Curatorial Assistant Evon Hekkala resurrects a goliath frog.

ACADEMY TRAVEL

Alaska Overland Adventure

With guides Bev and Dave Kavanaugh you'll experience the exceptional diversity of Alaska. You'll first travel to Katmai National Park, visiting the Valley of Ten Thousand Smokes and observing huge Alaska brown bears fishing in Brooks Falls. Returning through Anchorage, cruise across Prince William Sound, viewing the massive Columbia Glacier. From Valdez, you travel to Wrangell/St. Elias National Park and the historic McCarthy/Kennicott mining region. You then travel north to Fairbanks with the last major stop at Denali National



John Kernan

Park. A pretrip excursion to Glacier Bay National Park and a post-trip extension north of the Arctic Circle to Kotzebue and Nome also will be offered.

June 28-July 13

Cost: \$5,475 per person (double occupancy), plus airfare

Southern Brazil: The Pantanal, Iguassu Falls and Coastal Rain Forest

Join Frank Almeda on a unique discovery of southern Brazil's natural highlights. You begin your adventure in the Pantanal — an immense patchwork of lakes, rivers, gallery forests and small islands in southwestern Brazil that covers some 54,000 square miles. This seasonal wetland environment is home to an enormous assemblage of plants and animals, including the extraordinary ostrich-like rhea. You'll visit Iguassu National Park, which harbors one of the most spectacular series of waterfalls in the world. In addition to seeing the major sites of the city of Rio, you'll visit the Rio Primate Center and Itatiaia National Park.

July 15-28

Cost: \$3,795 per person (double occupancy), plus airfare

For information on these itineraries, call the travel office at 750-7348.

ADULT EDUCATION

Environmental Resources on the Internet

Join instructors Tom Moritz and Anne Malley to explore the full range of environmental information resources with an emphasis on biological themes.

One session will focus on library resources for environmental information, including print and CD-ROMs. The second session will focus on resources available via the Internet, including Internet mailing lists, FTP sites, Gophers and World Wide Web sites. Requires working knowledge of electronic mail, remote login, basic familiarity with the Internet and file transfer protocols.

Jan. 6 and 13 — 9 a.m. to noon

Cost: \$70 members/\$80 nonmembers



Lucy's Lifestyle: Knowledge of our Ancient Relatives

Probe the lifestyles of our ancient relatives with instructor Dr. Nina Jablonski, director and curator of the Academy of Sciences' anthropology department. In this course, we will trace the history of how our ancestors made a living, including their diet and technology, possible habits and daily activities, interactions with other species in their environment, and the evolution of their linguistic and social skills. This chronological treatment will focus particularly on the earliest known hominids, followed by *Homo erectus*, the Neanderthals, and the earliest representatives of anatomically modern *Homo sapiens*.

Jan. 9-23 (3 Tue.) — 7 p.m. to 9 p.m.

Cost: \$55 members/\$65 nonmembers

Botanizing California: The Bay Area

This is the beginning of a continuing series of field trips and evening meetings to explore the special aspects of California botany. Our state has the greatest diversity of plant species and communities in the United States and, next to Hawaii, the highest number of unique or endemic species. Instructor Glenn Keator will emphasize relationships and ecology of plant communities, stressing adaptations, interrelationships, and special biotic factors such as pollination, fungal partners and seed dispersal. We will visit Pt. Reyes National Seashore, Armstrong Redwoods and Annadel State parks on our field trips.

Jan. 17-Feb. 21 (6 Wed.) — 7 p.m. to 9 p.m.

Field trips: Jan. 27, Feb. 3 & 10

Cost: \$120 members/\$135 nonmembers (Does not include field trip transportation)

For more information on these and other courses, contact adult and family education at 750-7100.

DOLPHINS

MAKE FRIENDS



Susan Middleton

Amphitrite and Thetis, our new arrivals, are settling in well at the Academy. They moved to Sea World of San Diego as part of a breeding program.

Readying them for transport to Sea World, Thetis and Amphitrite were placed in stretchers and moved to the transport containers. The containers, which were half-filled with seawater. With all the excitement, the dolphins moved over the wall of the dolphin tank and were transported in their containers on a chartered flight.

Aquatic Biologist Tad Smith, their new handler, traveled with them and retrained them. The two dolphins are now in their new holding pool, which is part of a six-million-gallon habitat, until they are ready to be moved.

With all the new noises and sights, the dolphins had a standable adjustment period for the first few days. Eight new dolphins (seven females and one male) made the underwater chatter.



Dong Lin

teamed up with two females and one male. While the remaining dolphins enter the pool, Amphitrite and Thetis have been much different from the other dolphins.

They are training the two to rate the pools and are being taught commands, which are different than those used to monitor their health, such as "sit" for examinations. They have arrived (20 pounds a day each) and the increased social activity, Sea World is helping them adjust to their new environment.

Since Sea World is closed to the public, Amphitrite and Thetis' new handlers will be helping the girls adjust to their new environment.

Aquarium Director Bob Jenkins is planning to move three harbor seals. After they have been moved to the dolphin tank to be retrofitted and retrained. Some of the possible species in the tank include white tips, Australian wobbegongs and

PHINS

DS IN TEXAS



two Pacific white-sided dolphins, for new home. The dolphins were an Antonio in mid-November as m.

included acclimating Amphi and On tank cleaning days, the dol- id then lowered into the contain- open at the top, were then filled at practice they had no trouble ng day they were carefully lifted k with the help of a crane and o the airport for their specially

e dolphin's caretaker at the Acad- mains in close contact with their are currently being housed in a -pool complex comprising the 2- e fully integrated into the facility. d activity, there was an under- them when they first arrived. les and one male) and 10 belu- r much louder than what they were used to here at the Steinhart! Though they were initially a bit shy, they showed a wide-eyed curiosity when viewing their new friends through their pool's gate that eventually turned into genu- ine interest in making the oth- ers' acquaintance.

They are being introduced to the other dolphins one at a time and will eventually be two-year-old calf during the day ain audiences. There are no plans s their background and handling other animals.

go through the gates that sepa- ht Sea World's behavioral com- here. Husbandry behaviors are n as fluke and blowhole presen- ave been eating well since their (herring and capelin) and, with World will be gradually increas-

the public until March, Amphi be able to spend a lot of time ew home.

earching for a good home for our been relocated, plans call for the opened as a tropical shark exhibit. ank include black tip reef sharks, and bamboo sharks.

TRADITIONAL ARTS



Guatemalan Marimba Music

Grupo Maya Kusamej Junan will perform music on the marimba — a xylophone-like percussion instrument.

Sat., Jan. 6 — 1 p.m. to 2 p.m.
(Auditorium)

History of the Accordion

Jim Boggio, from the Cajun-Zydeco band The Swamp Dogs, presents a history of accordions from the 1800s to the present. Several examples of button and piano accordions will be on display.

Sat., Jan. 13 — 1 p.m. to 2 p.m.
(Auditorium)

Native American Storytelling

Johnny Moses, from the *Tulalip* tribe, near Seattle, Washington, shares tales from the Pacific Northwest. The stories reflect the natural environment and are told in several different Native American languages.

Sat., Jan. 20 — 1 p.m. to 2 p.m.
(Auditorium)

American Banjo Music

Gordy Ohliger presents a theatrical comedy and musical history of antique banjos and plays American popular music from 1830 to 1935.

Sat., Jan. 27 — 1 p.m. to 2 p.m.
(Auditorium)



Explore cultural traditions from around the world. Free after general admission. Call 750-7165 for more information.

Herbst Lecture Series Selling Fast!

Stephen Jay Gould, author of *Dinosaur in a Haystack*, will open the Academy's annual *Conversations & Lectures at the Herbst Theatre* 1996 season to a sold out crowd. His talk, the *Annual Claire Matzger Lilienthal Distinguished Lecture*, will be held on Jan. 11 at the Herbst Theatre.

Other upcoming lectures include **Edward Hoagland**, Mar. 4; **David Brower**, April 2; **Ivan Doig**, April 25; **E.O. Wilson**, May 13; and **Mary Catherine Bateson**, May 28. Tickets are \$16 (\$12 for CAS members) and may be purchased by sending a check or credit card number and a self-addressed, stamped envelope to City Box Office, 153 Kearny Street, Suite 402, San Francisco, CA 94108; or call (415) 392-4400.

YOUNG AUDIENCES



Latin Music from the Caribbean

Ricanstruction, an upbeat trio of musicians, will entertain you with Latin music from the Caribbean. Learn the ingredients of salsa music and watch the whole band "cook" to the Afro-Cuban beat.

Sun., Jan. 21 — 1 p.m.

This one-hour family series is presented in the auditorium and is free after general admission. Call 863-1719 for more information.



MORRISON PLANETARIUM



1996 Almanac Opens January 12

Current Sky Shows: The planetarium will be CLOSED for sky show changes Jan. 8 to 11. The new show "1996 Almanac" opens Jan. 12. Northern California's largest indoor universe invites you to experience realistic simulations of the night sky and celestial events with the following sky shows. Tickets can be purchased (and members planetarium passes can be redeemed) one half hour before the show at the box office once inside the Academy of Sciences.

January Schedule

Sky Show / Description	Weekday	Weekend
Knock, Knock <i>search for extraterrestrial life</i>	— —	1 & 3 p.m.
1996 Almanac <i>celestial events of 1996</i> (opens Jan. 12)	2 p.m.	2 & 4 p.m.
StarTalk <i>tour of the night sky</i>	— —	noon
Where in Space is Carmen San Diego® <i>a family show</i>	— —	11 a.m.

For more information, please call (415) 750-7141.

Cosmology: Our Place in the Universe

B. Dean Lecture: When measuring objects in the universe, human beings fall in the middle — middle size, middle age and middle weight — — halfway between the phenomena of atomic physics and those of cosmology. Therefore, by looking at ourselves we can hope to learn about both the atom and the large scale universe.

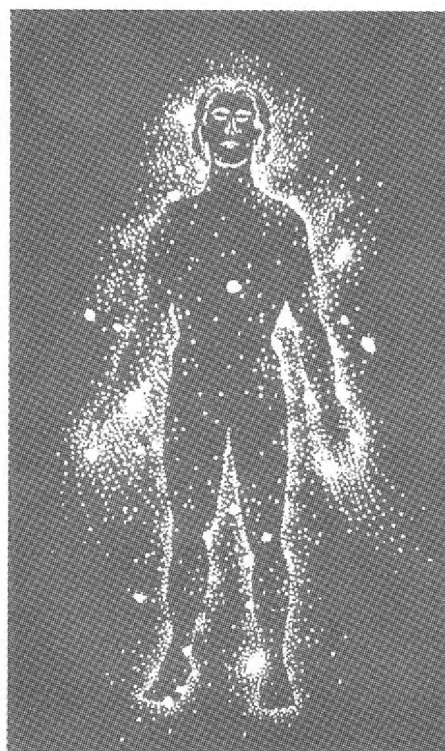
Life on Earth is a culmination of a long series of stages, from the Big Bang to the formation of galaxies, stars and planets to the emergence and evolution of life. Changing even one of the fundamental constants of physics or cosmology would prevent one or more of these vital stages from happening.

Dr. Virginia Trimble of the University of California Irvine and the University of Maryland will explore the implications of our place in the universe.

Jan. 30 — 7:30 p.m.; Tickets \$3

The Spring '96 series continues with Dr. Kent Cullers on detecting weak signals from space, 2/20; Alan Seiff on the Galileo atmospheric probe, 3/26; Dr. Roger Romani on gamma ray astronomy, 4/16; and Dr. Tim Hunter on the problems of light pollution, 5/21.

For advance tickets, use order form on the back cover. Tickets may be available at the door on a standby basis the day of the lecture. Call (415) 750-7141 for more information.



California Academy of Sciences
Golden Gate Park
San Francisco, CA 94118

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CALIFORNIA
ACADEMY OF SCIENCES
JAN -5 1996
LIBRARY

B. DEAN ASTRONOMY LECTURE SERIES

Quantity	Total
x \$3	=
x \$3	=
x \$3	=
x \$3	=
x \$3	=
TOTAL \$	

Cosmology: Our Place in the Universe / Jan. 30
Detecting Weak Signals from Space / Feb. 20
Galileo Atmospheric Probe / Mar. 26
Gamma Ray Astronomy / Apr. 16
Problems of Light Pollution / May 21

CONVERSATIONS & LECTURES AT THE HERBST THEATRE

Don't miss out on these wonderful lectures. For tickets, please call City Box Office at (415) 392-4400.

Edward Hoagland / Mar. 4
David Brower / Apr. 2
Ivan Doig / Apr. 25
E.O. Wilson / May 13
Mary Catherine Bateson / May 28

DONATIONS

☐ I would like to support the California Academy of Sciences with a donation.
\$

TOTAL PAYMENT ENCLOSED

PAYMENT METHOD

(Check one) ☐ Check ☐ VISA ☐ MasterCard ☐ American Express

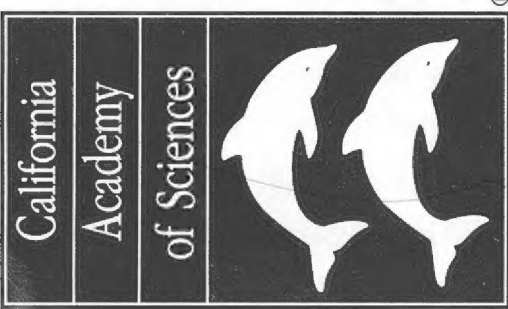
Credit card charges gladly accepted over \$10.

Card# Exp. Date

Signature

MAKE CHECK PAYABLE TO: C.A.S. and mail with this coupon form to:
Membership Office, Ticket Services
California Academy of Sciences, Golden Gate Park, San Francisco, CA 94118
Daytime Phone

Include a self-addressed, stamped envelope for each series to which you subscribe.
No refunds/exchanges.



The Academy includes the
Natural History Museum,
Steinhart Aquarium and Morrison
Planetarium. Open every day
from 10 a.m. to 5 p.m. July 4-
Labor Day we're open 9 a.m to 6 p.m.

VISITOR SERVICES

Academy Information: 415-750-7145
Academy Store: 750-7410
Admissions: 750-7159
Aquarium: 750-7247
Biodiversity Center: 750-7361
Development Office: 750-7216
Docent Tours: 750-7155
Education Office: 750-7100
Group Information: 750-7159
Job Hotline: 750-7333
Laserium: 750-7138
Lectures: 750-7128
Library: 750-7102
Membership Office: 750-7111
Planetarium: 750-7141
Planned Giving: 750-7216
Security: 750-7000
Switchboard: 221-5100
Travel: 750-7348
Volunteer Services: 750-7154
Weekend Information: 750-7375

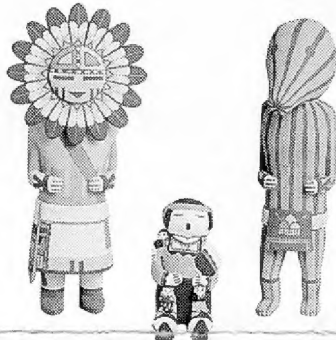
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THE
ACADEMY
STORE



HAVE YOU NOTICED THAT THE ACADEMY STORE LOOKS DIFFERENT? CELEBRATE THE NEW YEAR
AND OUR NEW LOOK WITH A VISIT TO THE RECENTLY RENOVATED ETHNIC ARTS SHOP.

With this coupon and purchases of \$25 or more from the Ethnic Arts Shop, receive a free set of note
cards with images from the Academy of Sciences' anthropology collection.

JANUARY

SUNDAY

MEMBERS

Please bring your
membership card when
you visit the Academy

7

PLANETARIUM
SKY SHOWS

weekdays
at 2 p.m.;
weekends each
hour from 11 a.m.
to 4 p.m.

14

21

Latin Music From
the Caribbean, 1
p.m. (Young
Audiences)

SEAL

FEEDINGS

28

are at 10:30 a.m.,
12:30 p.m. and
2:30 p.m. every day

MONDAY

1

8

Morrison Plan-
etarium closed for
sky show changes
through Jan. 11

15

SCIENCE IN
ACTION

General programs
Mon.-Fri. at
11:30 a.m.
Children's
programs Sat. at
12:30 & 3 p.m.;
this month's
topic is a
celebration of
*Rain
Forests.*

29

TUESDAY

2

9

FISH
ROUNABOUT
FEEDINGS

are at 2 p.m.
every day

16

HOURS

We're open every
day of the year
from 10 a.m. to 5
p.m. (Summer
hours: Memorial
Day through
Labor Day
we're open
9 a.m. to 6 p.m.)

23

30

Cosmology: Our
Place in the
Universe (As-
tronomy Lecture)

WEDNESDAY

3

Free Day
First Wednesday
of each month

10

ACADEMY
MEMBERS

are invited to a
special viewing of
"Audubon's
Watercolors" at the
de Young
Museum, Feb. 9,
5:30-8:30 p.m.
Show your
membership card
at the door.

17

SPECIAL
EXHIBITS

"Lu Huan: Stone
Carvings by a
Chinese Master,"
through May 26

24

HIGHLIGHT
TOURS

31

Free one-hour
highlight tours
are offered
daily.

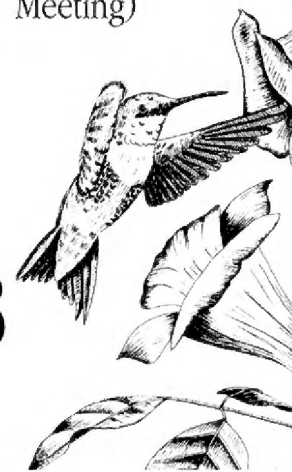
THURSDAY

4

11

Hummingbirds, 2 &
7:30 p.m. (Members
Meeting)

18



25

PERMANENT EXHIBITS

Insect Room: There are more than one million
different species of insects, making
them one of the most diverse groups of creatures
on Earth. You will be awed by this colorful
and intriguing display.

FRIDAY

5

PENGUIN
FEEDINGS

are at 11:30 a.m.
and 4 p.m. every day

12

Morrison
Planetarium
reopens with
"1996 Almanac"

19

LASERIUM
SHOWS

Thursday-Sunday,
evenings,
call 750-7138

26

SATURDAY

6

Guatemalan
Marimba Music, 1
p.m. (Traditional
Arts)

13

History of the
Accordion, 1 p.m.
(Traditional Arts)

20

Native American
Storytelling, 1 p.m.
(Traditional Arts)

27

American Banjo
Music, 1 p.m.
(Traditional Arts)



FEBRUARY DATES TO REMEMBER

9 - "Audubon's Watercolors," 5:30-8:30 p.m. at the de Young Museum
20 - Detecting Weak Signals from Space (Astronomy Lecture)
22 - Old Fossils, New Species: Find our Earliest Ancestors in Ethiopia (Special Lectures)

UPCOMING MEMBERS MEETINGS

February 14 - African Birds, with Professor Douglas Cheeseman Jr.
March 13 - The Wolf, with Pat Tucker and Bruce Weide
April 10 - Frogs, with Dr. Robert Drewes
May 8 - Open House for Members